UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,371	07/31/2003	Ralph A. Heasley	287.1006	2138

23280 7590 06/14/2007

DAVIDSON, DAVIDSON & KAPPEL, LLC
485 SEVENTH AVENUE, 14TH FLOOR
NEW YORK, NY 10018

EXAMINER	
FUBARA, BLESSING M	
ART UNIT	**PAPER NUMBER**
1618	

MAIL DATE	DELIVERY MODE
06/14/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/631,371	HEASLEY ET AL.	
	Examiner	Art Unit	
	Blessing M. Fubara	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *25,27 and 29-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *25,27 and 29-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/16/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Examiner acknowledges receipt of supplemental IDS, amendment and remarks filed 3/16/07. Claims 25, 32, 35 and 36 are amended. Claims 26 and 28 are cánceled. Claims 25, 27 and 29-37 are pending.

Election/Restrictions

1. Applicant traverses the withdrawal of claims 25-34 on the grounds that the "invention is directed to oral tranexamic acid formulations that minimize or eliminate the undesirable gastrointestinal side effects in patients receiving oral tranexamic acid therapy," and further that the entire specification is "replete with disclosure about formulations described therein suitable for minimizing or eliminating gastrointestinal side effects." The withdrawal was based on the fact that, claim 1 was reducing the concentration of tranexamic acid in the stomach during therapy and not to the elected effect of reducing gastrointestinal adverse side effects. The current amendment now appends the effect of reducing gastrointestinal adverse side effects to the effect that the administration of the formulation is such that the tranexamic acid is released in the small intestine thereby reducing the concentration of tranexamic acid in the stomach during therapy.

Thus, pending claims 25, 37 and 29-37 are examined in view of applicant's amendment and signed statement that the inventions of claims 25-34 and 35-37 are the same.

Response to Arguments

Previous rejections that are not reiterated herein are withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 25, 27, 29, 32 and 35-37 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kamei et al. (US 5,575,987).

The invention in claims 25, 32 and 35-37 orally administers effective amount of delayed release pharmaceutical (claim 37), extended release pharmaceutical (claim 35) and effective amount of pharmaceutical to effect reduction of gastrointestinal side effects. Delayed release and extended release are forms of controlled/sustained release governed by the excipients included with the active agents in the formulation, either as a matrix material or as coating material.

Kamei discloses sustained release microparticles containing biologically active substance and biodegradable polymer (abstract; column 1, lines 9-14 and 45-58); the bioactive substance includes hemostatic agent, of which tranexamic acid is named (column 4, lines 9, 11 and 59); the microcapsules are administered "to the living body" (column 9, lines 32-37) in the form of injectable preparations and oral preparations such as powders, granules, capsules or tablets (column 9, lines 38-42) and these dosage forms of oral administration meet the requirement for ingestible solid pharmaceutical dosage form of claims 25, 32 and 35; the microcapsule formulation is prepared with dispersing agents, preservatives, isotonizing agents or vegetable oils (column 9, lines 50-60); oral administrable formulations contain excipients, binders and/or

lubricants (column 10, lines 1-9); the oral preparation also contains cellulose materials that ensure the extended release of the drugs in the intestines and of these the EUDRAGIT type polymers, cellulose acetate phthalate, hydroxypropylmethylcellulose phthalate and hydroxymethylcellulose acetate succinate are named (column 10, lines 10-20) and these polymers meet the requirements for excipients in claims 25, 32 and 35 and the dosage form meets claim 27 when the active substance is tranexamic acid. Also, because the release of the active is retarded in the intestine in Kamei, it flows that the active substance is also inherently retarded in the stomach. Kamei discloses that the proper dose of the active substance for the adult human weighing 50 kg is at from about 1 mg to about 10 g, with from about 10 mg to about 2 gram preferred (column 10, lines 61-64), and points within the disclosed range in the dose touches points within the recited range of dose of claim 29; "effective amount" as recited in claim 35 is any amount and the amount disclosed by Kamei meets that limitation. The method of claims 25, 32, 35 and 36 provides or administers composition that contains tranexamic acid and excipients such that the method of Kamei anticipates the claimed method of administration where the Kamei also administers the claimed composition. Since the same compositions are administered by the instant claims and by the prior art, it flows that the effect emanating from these compositions would be the same in both the instant case and in the prior art, which means that the administration of the composition of the prior art in an effective amount would inherently produce/provide the same effect as that claimed.

In the alternate, the fact that the drug formulation of the prior art comprises the same excipients named in applicant's specification as contributing to controlled/sustained release of the tranexamic acid, it flows that the presence of these excipients in the formulation of Kamei

lends to the inherent ability of the formulation of the prior art to be delivered/released at any where in the GI tract, or retarded anywhere in the GI tract. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to administer the oral formulation of Lerner to treat Vomiting, nausea, gerd and/or reflux disease and expect the tranexamic acid to be released anywhere along the GI tract since the excipients of Lerner are known to control release of drugs.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 25, 27 and 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamei et al. (US 5,575,987) in view of Cooper et al. ("A randomized comparison of medical and hysteroscopic management in women consulting a gynecologist for treatment of heavy menstrual loss," in British journal of Obstetrics and Gynecology, vol. 104, pp 1360-1366, 1997).

Claims 25, 27, 29, 32 and 35-37 are rejected above as being anticipated or, in the alternate, rendered obvious by Kamei. However, Kamei does not teach the elements of claims 30, 31, 33 and 34. Regarding claims 30, Kamei suggest that the proper amount is dependent on the drug it self so that the artisan is able by this suggestion to use the disclosed amount of 1 mg to 10 g (column 10, lines 63 and 64) in amounts and dosing interval that would provide the desired result/effect. The disclosure of granular formulation (column 9, lines 38-42) meets claim 31, which is dependent on claim 30. Regarding claims 33 and 34, Cooper discloses that bloating is one of the symptoms of one who is suffering from menorrhagia and that tranexamic acid is known to be administered to persons having menorrhagia (pp 1360-1365). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to administer the tranexamic acid to a person in need thereof with the expectation that the tranexamic acid would relieve some of the symptoms of the menorrhagic condition.

7. Claims 25, 27 and 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamei et al. (US 5,575,987) in view of Lerner et al. (US 6,197,331) and further in view of Cooper et al. ("A randomized comparison of medical and hysteroscopic management in women consulting a gynecologist for treatment of heavy menstrual loss," in British journal of Obstetrics and Gynecology, vol. 104, pp 1360-1366, 1997).

Claims 25, 27, 29, 32 and 35-37 are rejected above as being anticipated or, in the alternate, rendered obvious by Kamei. However, Kamei does not teach the elements of claims 30, 31, 33 and 34. Regarding claims 30, Kamei suggest that the proper amount is dependent on the drug it self so that the artisan is able by this suggestion to use the disclosed amount of 1 mg to 10 g (column 10, lines 63 and 64) in amounts and dosing interval that would provide the

desired result/effect. The disclosure of granular formulation (column 9, lines 38-42) meets claim 31, which is dependent on claim 30. Regarding claim 33, Lerner treats vomiting, nausea, gerd and reflux disease with composition containing tranexamic and excipients (column 17, lines 1-7 and column 16, lines 11-13). Regarding claim 34, Cooper discloses that bloating is one of the symptoms of one who is suffering from menorrhagia and that tranexamic acid is known to be administered to persons having menorrhagia (pp 1360-1365). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to administer the tranexamic acid to a person in need thereof according to Lerner with the expectation that the tranexamic acid would relieve bloating that results form menorrhagia according to Cooper.

No claim is allowed.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blessing M. Fubara whose telephone number is (571) 272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Blessing Fubara BF
Patent Examiner
Tech. Center 1600

MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER